What is claimed is:

1. An information reproducing method using a PRML (Partial Response Maximum Likelihood) method which compares readout signal levels at consecutive N times with target levels and selects the most likely state transition to convert the readout signal into binary data,

wherein:

different target signal levels are used at least for verification and read retry.

2. The information reproducing method as claimed in Claim 1,

wherein:

the target signal levels used for the verification are a fixed target value plus a compensation value;

the same compensation value is used for, among the bit streams (arrays) corresponding to the consecutive N times, a pair of bit streams for which the result of interchange between 0 and 1 is the same, and for a first bit stream and a second bit stream corresponding to time reversal of the first bit stream; and

the compensation value is calculated by multiplying the difference between the asymmetry value or top and bottom envelope level of the readout signal and the fixed target value by a predetermined ratio.

3. The information reproducing method as claimed in Claim 2, wherein, when the minimum mark or space length is 2T, four independent compensation values are used.

4. The information reproducing method as claimed in Claim 2, wherein, when the minimum mark or space length is 2T, three independent compensation values are used.

5. The information reproducing method as claimed in Claim 1, wherein:

the target signal levels used for verification are a fixed target value plus a compensation value; and

the same compensation value is used for, among the bit streams (arrays) corresponding to the consecutive N times, a first bit stream and a second bit stream corresponding to time reversal of the first bit stream.

6. The information reproducing method as claimed in Claim 1, wherein:

the target signal levels used for verification are a fixed target value plus a compensation value; and

the same compensation value is used for plural bit streams (arrays) for which target partial response levels are equal.

7. An information reproducing apparatus comprising:

an asymmetry compensation target value table;

a compensation target value table;

a unit which selects either the asymmetry compensation target value table or the compensation target value table; and

a unit which compensates for a signal according to the selected table.

8. The information reproducing apparatus as claimed in Claim 7, comprising:

a level error calculation unit which receives equalized readout signals and calculates the square value of difference from a value of the selected table for each of bit streams (arrays) at consecutive N times;

a minimum error condition selecting unit which receives output from the level error calculation unit, selects the most likely bit stream, and outputs a binary result; and

a level averaging unit which recomposes bit streams from the binary result outputted from the minimum error condition selecting unit, averages them for each signal level, and stores the averaging result in the compensation target value table.

9. The information reproducing apparatus as claimed in Claim 7, further comprising:

an asymmetry detection unit which detects the asymmetry value of the readout signal or an envelope detection unit which detects the envelope of the readout signal,

wherein the asymmetry compensation target value table stores asymmetry values detected by the asymmetry detection unit or target levels determined according to the envelope detected by the envelope detection unit.

10. The information reproducing apparatus as claimed in Claim 8, further comprising:

a time reversal symmetric unit which equalizes compensation values for bit streams which are mutually in a relation of time reversal with respect to the averaging result of the level averaging unit,

wherein the result of processing by the time reversal symmetric unit is stored in the asymmetry compensation target value table.